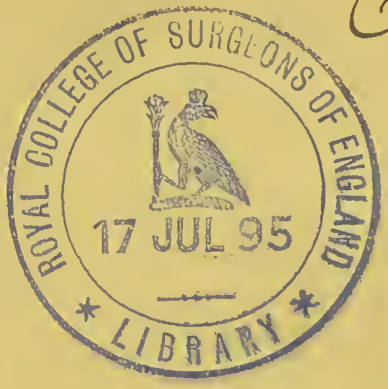

CASES OF DIFFICULT FRACTURES

OCCURRING IN PRIVATE PRACTICE

BY

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Reprinted from the PROVINCIAL MEDICAL JOURNAL, July, 1895.

CASES OF DIFFICULT FRACTURES OCCURRING IN PRIVATE PRACTICE.[1]

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I have brought these two cases of fracture before your notice as examples of successful treatment in fractures of old people. Professor Humphry was, I believe, the first authority that brought prominently forward the fact that fractures in elderly persons might be treated with the expectation of union much as those of younger years. The lady with fracture of the neck of the femur (extra-capsular) was sixty-nine at the time of accident, and has for some years walked without lameness.

In an article in the *Lancet* of June 1st, so unsatisfactory does Mr. Beddoe consider the usual treatment of fracture of the thigh, that he suggests that "the surgeon should cut down upon the seat of fracture, and unite the fragments, by screw or wire, in the exact relation that they have occupied previously;" but this would often prove, I think, a serious matter, and greatly add to the fear, if not to the danger, of the accident, and from the mere dread of the operation militate against recovery.

Mr. Beddoe gives details of sixteen cases of fracture of femur, and four only can do work as well as before accident. Can sufficient care and attention be given to these fractures? or one would think permanent disablement in so many unusual. Mr. Beddoe, of course, did not advise this heroic treatment for old people. But if fractures in old people can, by careful treatment, be made to unite, *ergo*, those in the young and prime of life certainly should.

Case 1. Fracture of Neck of Femur (extra capsular).—On Sunday, March 31st, 1889, Miss P——, æt. sixty-nine, a slim, neurotic woman, was going upstairs, when her foot tripped, so her sister told me, and she fell, but only two or three steps. Her brother carried her to bed. On my arrival I found the leg everted, slight crepitus at the neck of the femur; there was three-quarters of an inch shortening,

[1] Paper read before the West London Med.-Chir. Society, June 7th.

and perfect immobility of the bone. I applied Liston's long splint, extending from the axilla to three inches below the foot. A well-padded perineal band and counter extension was well kept up by occasionally tightening the tape of the band simultaneously at the axilla and ankle, also by small bags of shot suspended from the foot.

The long splint was kept on for six weeks, and on May 14th, when it was removed, the fragments were firmly united, and with no bulging nor any superfluous callus. Unfortunately, this satisfactory result of the fracture was spoilt by the discovery of a huge bed-sore over the left buttock, and this complication was a surprise, for the patient had never complained nor appeared uncomfortable, and although this bed-sore was in a suppurating condition, her temperature, until the last day or two, had not risen, and then only to 100°.

On May 21st, the bed-sore not improving, but extensively sloughing, I called in Mr. Keetley, who happily suggested a fracture bedstead—*i.e.*, a bedstead with a space to receive the buttocks (which was to be kept uncovered) and thus all pressure removed, and irrigation to be applied twice daily, or even oftener, with Condy's fluid or zinc or carbolic lotion, by means of a syphon spray, and this was kept very frequently playing on the bedsore from *beneath* the bedstead, and at first sometimes for two or three hours at a time.

This treatment was followed by the best results, the large sore rapidly contracting and granulating. Recovery was, unfortunately, greatly retarded by an acute attack of arthritis in both knees. Whether this could have been due to degenerate neurotic changes, from the pressure of the bandage (for the left knee-joint was very much worse than the right), or from cold resulting from the spray, in a rheumatic subject, it would be interesting to have your opinion. Miss P—— never used crutches,[2] and I much regret I could not persuade her to be here this evening, for the union of the fractured femur was most perfect, and she walks without

[2] I very much doubt if this patient would ever have been able to use crutches, as there was a great want of nerve power. She could never grasp my hand firmly. There was even a suspicion that the accident was caused by a slight fit, which caused the patient to trip, and this would account for a morbid insensibility to pain that was so noticeable throughout her illness, and for her more than usual reticence.

lameness, and the ultimate result of this very serious case is exceedingly satisfactory and gratifying, especially as I at one time almost thought although I had saved my patient from a crooked thigh she might have succumbed to the exhausting effects of so formidable a bedsore.

Case 2. Fracture of Surgical Neck of Humerus.—On the morning of January 21st, 1886, Jane M——, æt. seventy-five, a stout, heavy woman, fell downstairs backwards, alighting on her right shoulder. Fracture of the head or surgical neck of humerus was diagnosed. The patient was kept in bed for ten days, and four splints were applied, both plaster and stout ribbon straps with buckle, and for the first few days evaporating lotion to the shoulder. The advantage of these straps is as the swelling subsides you can tighten the splints without disturbing the fragments.

In six weeks' time there was union, but very little power in the shoulder. Splints were kept on for seven weeks. The patient suffered much from chronic rheumatism in the joint, but for several years before death had a useful arm, and suffered more from arthritis of joints in the hands than her injured shoulder.

Patient died June 21st, 1894. The humerus, shewing osssfic union of fracture, was handed round for the inspection of members.

Case 3.—Fracture of the lower third of the humerus, complicated by acute synovitis of the elbow-joint, with a probable T-fracture and a fracture of the internal condyle; excellent recovery.—A. R.——, æt. thirteen, a pupil of the Godolphin School, was brought to my house by his form master on Friday, May 18th, 1894, who told me that the boy had had a fall and broken his arm; and as he entered my consulting room he supported his elbow with his other hand. Even at a distance considerable deformity was perceptible, and at a glance I could pretty well discern that there was a fracture of the humerus about the lower third. On examination I found an oblique fracture of the shaft about an inch above the elbow-joint, but the upper extremity of the fracture extended about three-quarters of an inch nearer the centre of the shaft.[3] The lower fragment was drawn upwards and

[3] Heath says in his "Dictionary of Practical Surgery" (page 745), that "ununited fracture is much more common in the shaft of the humerus than any other bone."

backwards by the brachialis anticus and biceps, and the upper fragment projected somewhat inwards and forwards. There was very considerable deformity, but it was easily reduced by extension. I at once placed the arm, after reduction, on a well-padded right-angular splint, and again adjusted the fragments, and on doing so felt a little crepitus near the elbow, about an inch below the fracture of the shaft, and this at first appeared to me that a small piece of the internal condyle might be broken off, or rather that the crepitus was due to effusion from the very considerable sprain at the time of accident, and from the history given me thought it possible that the fracture of the shaft was an indirect fracture due to muscular action by his effort to save himself.

History of the Case.—The patient was standing on a low roof, not more than a foot and a half from the ground—his master said a foot—when he suddenly slipped off, and then fell flat on the palm of his left hand, which he said *was* "*twisted*, and he heard the bone snap."

I applied an anterior splint, and a small short one on the inner side to counteract the tendency of the upper fragment to project inwards. The splints were secured by plaster, and the anterior splint extended to a little below the elbow. The splints were all well padded, and the whole secured by a bandage. The patient was told to go to bed. I visited him three or four hours after accident, and found him in bed, his injured arm resting comfortably on a pillow. Said that he had had no pain since his arm was set. I examined the bandage that it was not too tight, neither did there appear to have been any increased swelling.

As I was going to Bournemouth I left the case in charge of my son, Dr. Herbert Alderson, and asked him to see it the next morning, and explained to him the nature, as I thought, of the fracture, but on account of urgent professional engagements he did not see him till about noon, when he was sent for. The patient was in considerable pain, and the elbow was very much swollen, distending the bandage. The patient said he had slept well, and was comfortable till about 5 a.m., when his arm began to swell. My son posted me the following note to Bournemouth :

"*Re Godolphin School.*—Hand was swelling and commencing to become dusky, so was obliged to remove splints ;

the inner one I thought was too far into the flexure of the elbow. I sent a lotion for the elbow, and left off the internal splint, but did not disturb the angular one, or alter the adjustment of the fracture, which is a T-one into joint, I suspect, but I have not endeavoured to find out, as the swelling into joint was too much, and the arm seems in good position."

I returned to town on the following Tuesday, and found the patient well in health, fragments in capital position, but the elbow very much swollen: this I painted with tinct. iodi co., and applied the buttercup lotion (Pb. I.): the effect of this was excellent, and reduced the swelling so much that in two or three days I was able to reapply the inner splint, and on Sunday the boy was allowed to get up. At the end of three weeks the splints were all taken off, and the arm carefully washed. The fracture of the shaft had united most satisfactorily without any displacement: beyond a little thickening of the bone, one could hardly have told there had been a fracture of the shaft. I now applied ribbed splints; the lower one two inches below the other, so as still to keep the arm at rest, having first bandaged the arm from the hand.

At the end of another week—*i.e.*, a month from the date of accident, I limited the splints to the humerus, leaving the elbow free, but on account of the probable T-fracture, did not attempt to extend or flex the elbow; the boy was able to lift arm. After five weeks, on Monday, May 25th, I removed all splints, expecting to find the arm well, and was much disappointed and concerned to find that although there was evidently firm union, there was most decided anchylosis, and the elbow was perfectly fixed and immovable. After several attempts to overcome this rigidity by blisters, iodine, as well as by manipulation and attempted exercise of the joints, such as hanging on the cross-bar, and gymnastics, on July 2nd I gladly availed myself of a consultation with Mr. Keetley, who after careful and deliberate examination, diagnosed that there had been a T-fracture into joint, or that a piece of the internal condyle had been chipped off. The elbow measured nearly an inch in excess of the sound arm, and there was a great deal of thickening, and some enlargement of the internal condyle. Mr. Keetley advised that I should forcibly extend the joint under gas twice a week, and in the interval manipulate the joint.

I should mention that in the week that elapsed between the consultation with Mr. Keetley and the discovery of the anchylosis, there had been improvement, slight but marked: the elbow was rather less swollen, but he was unable to feed himself, as he could not get his hand to his mouth.

I suggested that the boy, who was fond of cherries, should eat 1lb. every day, conditionally that he ate them by the use of his left hand, and this was carried out and followed by perceptible improvement, for to reach his mouth at first appeared almost an impossibility, but was soon accomplished quite easily and quickly.

On July 5th I took the patient to Mr. Herbert, the dentist, who administered the gas while I forcibly extended the arm, extending the limb suddenly after extreme flexion, as advised by Mr. Christopher Heath in his "Index of Surgery." I felt the arm give, and the adhesions cracked, and this effort was attended by great and visible improvement in the appearance of the arm, as well as considerably so in its use. On the 7th he was again placed under gas, and the extension repeated. I used more force, particularly in flexion, and some further improvement followed, but it was not so evident as before, and not sufficient to encourage it to be repeated.

July 11th: Ung. iodi co. was rubbed into joint daily by the excellent school-matron who had nursed him throughout with assiduity and care, and I myself used massage two or three times a week.

July 21st: The youth returned home to Cornwall for all practical purposes quite recovered, and with a very useful joint.

Sept. 21st: On examining elbow after the holidays on his returning to school, he said he was quite well: there is free extension, slightly limited flexion, for he can't quite bend his arm; the elbow measures eight inches on each arm, but the internal condyle is about $\frac{1}{8}$ of an inch larger than in the uninjured arm. To-day, June 7th, he tells me it is stronger than the other. The points of interest and of practical importance of this case are: (1) The nature of the accident; (2) the anchylosis; (3) the treatment and the result.

I must confess that I am inclined to think the case is perhaps an example of a simple oblique fracture of the lower

third of the humerus, complicated by acute synovitis and a fracture of the internal condyle (a small piece being chipped off), and this complication is evident by the permanent enlargement of the condyle, and the inpossibility of perfectly bending the arm. I base my conclusions upon the fact that the boy slipped down on the roof, a platform on which he was standing, and this was only a foot from the ground. He attempted to save himself and fell off the roof on to the ground flat on the palm of his hand; "he heard the bone snap and felt it twisted."

Might not therefore the fracture have been caused more by indirect than direct violence? There were no bruises; there evidently had been a very violent sprain, and consequently great tension of the muscles, but on the contrary no great violent fall, as, I believe, is generally the cause of a T-fracture —*i.e.*, a transverse fracture of the humerus, extending between the two condyles into the joint. The patient fell on the palm of his hand, and only from a comparatively short distance (about a foot). He said that he "heard the bone snap, and that it was twisted."

(3) A word as to the anchylosis. Was the immobility of the elbow that existed at the date of consultation with Mr. Keetley due to the soft fibrous or to bony anchylosis? Attempted movement produced *excessive pain;* there had been a slight improvement since all splints had been removed and manipulation employed, and had the great difference that existed in the size of the injured from the sound elbow that existed on the day of consultation, July 2nd, been caused entirely by the deposit of callus or ossific deposit, one could hardly have expected the perfect absorption of the very extensively effused material, and the almost perfect restoration of the healthy joint. I think, therefore, that the anchylosis, pronounced as it was, may have been mostly of the fibrous or soft variety, the result of the inflammation of the synovial membrane, and distinct from that very serious and permanent form of bony anchylosis which is irremediable, and for which treatment is useless. The slight deformity of the joint that now exists is evidently owing to the chipping of the internal condyle, and appears to prevent the complete flexion of the joint.

With regard to the treatment, was the arm kept too long in a fixed, immovable position, and should gentle flexion

and extension been attempted sooner? I think not, and in this Mr. Keetley quite concurred; although if a T-fracture, authority has stated that gentle movement should be permitted after three weeks. In conclusion, I cannot speak too highly of the great use of the forcible extension under gas, to which practical suggestion I am indebted to Mr. Keetley, who had not the advantage of seeing the patient until six weeks after the accident. I greatly regret he is not present this evening that he might have examined the much improved condition of the joint since he saw it, and that we might have had the pleasure and advantage of his remarks, to which we always listen with attention and benefit. Had the accident happened in the country, where the surgeon's visits are, on account of distance, obliged to be too often like the angels, few and far between, I can easily believe that the effused lymph or fibrous exudation might have so bound the folds of the capsule of the joint together, and the very firm adhesions that undoubtedly existed might have developed ultimately into permanent anchylosis, and a perfectly useless joint resulted. This, too, is another of those anxious cases that, had it chanced to have fallen into the hands of the bone-setter, grievous harm to the patient might have been the consequence, as well as damaged reputation to the surgeon.

Thanks to the courtesy of the Rev. G. Mackie, M.A., Head-Master of the Godolphin School, the patient is present, and willing to be examined by any member of the Society.

In the discussion that followed, Mr. Bidwell remarked that he thought T-fractures of the elbow were best treated by being put up in plaster-of-Paris; but in this fracture so much inflammation and swelling followed, that had this practice been adopted I think the result would not have been so good, and I like the practice of the old dictum that I was taught never to cover up the seat of fracture.